

ABSTRACT OF THE DISCLOSURE

5 A portable induction tool is provided for soldering or brazing sections of metal pipe together. A work coil head (with induction coil) is U-shaped, allowing placement of the head around lengths of pipe, heating a susceptor (e.g., the pipe) to form a joint, and then to be withdrawn after the pipe joint is made. In one form, the tool uses heat pipes to remove thermal energy from the head, and also a heat exchanger for higher-powered units. Power capacitors are generally included with the induction (work) coil to create a tank circuit of a resonant frequency. The induction coil uses Litz wire, copper tubing, or heat pipes with a
10 conductive outer skin to carry the high-current being delivered to the induction coil. The induction coil has a general racetrack configuration, which is typically wound in a U-shape (or as a semicircle) as a single winding, with multiple turns.

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